



SEQUENCE LISTING

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<160> 83

<170> PatentIn Ver. 2.0

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<223> Description of Artificial Sequence: exemplary
motif characterizing C2H2 class proteins

<220>

<221> SITE

<222> (2)..(5)

<223> where Xaa is any amino acid

<220>

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<222> (4)..(5)

<223> where Xaa may be present or absent

<220>

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<222> (7)..(18)

<223> where Xaa is any amino acid

<220>

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<222> (20)..(24)

<223> where Xaa is any amino acid

<220>

<221> SITE

<222> (23)..(24)

<223> where Xaa may be present or absent

<400> 1

Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa His Xaa Xaa Xaa Xaa Xaa His

<210> 2
 <211> 4
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: D-able subsite

<220>
 <221> misc_feature
 <222> (1)..(2)
 <223> n = a, t, g or c

<220>
 <221> misc_feature
 <222> (4)
 <223> k = g or t

<400> 2
 nngk

4

<210> 3
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: zinc finger
 protein bind sequence

<400> 3
 ggcgtagac

9

<210> 4
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: zinc finger
 protein bind sequence

<400> 4
 ggcgacgta

9

<210> 5
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: peptide
 linker

<400> 5

Thr Gly Glu Lys Pro
1 5

<210> 6
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 6
Gly Gly Gly Gly Ser
1 5

<210> 7
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 7
Gly Gly Arg Arg Gly Gly Gly Ser
1 5

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 8
Leu Arg Gln Arg Asp Gly Glu Arg Pro
1 5

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 9
Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro
1 5 10

<210> 10
<211> 16

<212> PRT
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: linker

 <400> 10
 Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
 1 5 10 15

 <210> 11
 <211> 25
 <212> PRT
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 <220>
 <223> Description of Artificial Sequence: component
 finger of zinc finger protein

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 <223> where Xaa is any amino acid

 <220>
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 <223> where Xaa may be present or absent

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 <222> (7)..(18)
 <223> where Xaa is any amino acid

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 <223> where Xaa is any amino acid

 <220>
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 <223> where Xaa may be present or absent

 <400> 11
 Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

 Xaa Xaa His Xaa Xaa Xaa Xaa His
 20 25

 <210> 12
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 domain F1

<400> 12
 Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser Asp
 1 5 10 15
 Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys Pro
 20 25 30

<210> 13
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 domain F2

<400> 13
 Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His Leu
 1 5 10 15
 Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro
 20 25

<210> 14
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 14
 gggtgcagtg ggcgcgccca cagtacttga acgtaacg 38

<210> 15
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 15
 cgttacgttc aagtactgtg ggcgcgccca ctgc 34

<210> 16
 <211> 12
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 16
 tgggcgtatg ct 12

<210> 17
 <211> 12
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 17
 agcatacgcc ca 12

<210> 18
 <211> 57
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 18
 ggaattcctg atcaagatct ggtcacgtcc ataggctagg catgtcaagg ctgtatg 57

<210> 19
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: DNA binding
 site

<400> 19
 gggatccact cgcgaaacgcg tccttgtagt gggcgcgcc acatacagcc ttgacat 57

<210> 20
 <211> 12
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: inverted
 repeat site

<400> 20
 tgggcgcgcc ca 12

<210> 21
 <211> 14
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
self-complementary oligonucleotide

<400> 21

atgggcgcgc ccat

14

<210> 22

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide
extension

<220>

<221> SITE

<222> (1)

<223> "His" is numbered 89

<220>

<221> SITE

<222> (15)

<223> "Arg" is numbered 103

<400> 22

His Pro Met Asn Asn Leu Leu Asn Tyr Val Val Pro Lys Met Arg
1 5 10 15

<210> 23

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA site used
for affinity selection

<400> 23

gcagtgggcg cgccacagt acttgaacgt aacg

34

<210> 24

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: peptide 1

<400> 24

Gly Gly Gly Gln Trp Leu Gly Thr Trp Glu Trp Tyr Gly Pro Lys
1 5 10 15

<210> 25
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide 2

 <400> 25
 Tyr Glu Lys Ile Ser Val Glu Gly Ile Lys Asp Val Arg Val Arg
 1 5 10 15

 <210> 26
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide 3

 <400> 26
 Asn Val Ser Ile Glu Gly Val Leu Lys Tyr Tyr Arg Gly Leu Arg
 1 5 10 15

 <210> 27
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide 4

 <400> 27
 Arg Ser Cys Gly Leu Asp Tyr Glu Gly Tyr Trp Leu Lys Leu Lys
 1 5 10 15

 <210> 28
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: peptide 5

 <400> 28
 Ser Arg Trp Leu Glu Glu Glu Val Ser Arg Leu Leu Leu Leu Arg
 1 5 10 15

 <210> 29
 <211> 15
 <212> PRT
 <213> Artificial Sequence

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<223> Description of Artificial Sequence: peptide 6

<400> 29

Gly Glu Ala Leu Asp Arg Phe Glu Arg Glu Met Lys Leu Met Arg
1 5 10 15

<210> 30

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 30

Gly Gly Gly Gln Trp
1 5

<210> 31

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 31

His Pro Met Asn Asn
1 5

<210> 32

<211> 5

<212> PRT

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<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 32

Pro Pro Ser Thr Glu
1 5

<210> 33

<211> 5

<212> PRT

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<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 33
Gln Lys Tyr Gly Asp
1 5

<210> 34
<211> 5
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<220>
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block reoptimization sequence

<400> 34
Glu Asn Tyr Glu Lys
1 5

<210> 35
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 35
Leu Gly Thr Trp Glu
1 5

<210> 36
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 36
Leu Leu Asn Tyr Lys
1 5

<210> 37
<211> 5
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 37
Leu Leu Asn Tyr Val

1

5

<210> 38
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 38
Leu Leu Asp Tyr Ile
1 5

<210> 39
<211> 5
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<220>
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block reoptimization sequence

<400> 39
Leu Leu Asn Tyr Ile
1 5

<210> 40
<211> 5
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<220>
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block reoptimization sequence

<400> 40
Leu Leu Gln Tyr Val
1 5

<210> 41
<211> 5
<212> PRT
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block reoptimization sequence

<400> 41
Leu Leu Glu Tyr Lys
1 5

<210> 42
 <211> 5
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 <220>
 <223> Description of Artificial Sequence: sequential
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 <400> 42
 Leu Leu Asp Tyr Val
 1 5

 <210> 43
 <211> 5
 <212> PRT
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 <220>
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 <400> 43
 Leu Leu Asn Tyr Val
 1 5

 <210> 44
 <211> 5
 <212> PRT
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 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 44
 Trp Tyr Gly Pro Lys
 1 5

 <210> 45
 <211> 5
 <212> PRT
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 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 45
 His Pro Lys Met Lys
 1 5

 <210> 46
 <211> 5

<212> PRT
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 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 46
 Pro Ala Lys Ile Arg
 1 5

 <210> 47
 <211> 5
 <212> PRT
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 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 47
 Val Pro Lys Ser Arg
 1 5

 <210> 48
 <211> 5
 <212> PRT
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 <220>
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 block reoptimization sequence

 <400> 48
 Val Pro Arg Leu Lys
 1 5

 <210> 49
 <211> 5
 <212> PRT
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 <220>
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 <400> 49
 Ala Pro Lys Leu Arg
 1 5

 <210> 50
 <211> 5
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<220>
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block reoptimization sequence

<400> 50
His Ala Lys Ile Arg
1 5

<210> 51
<211> 5
<212> PRT
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<220>
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block reoptimization sequence

<400> 51
Val Val Lys Met Arg
1 5

<210> 52
<211> 5
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block reoptimization sequence

<400> 52
Pro Val Lys Met Arg
1 5

<210> 53
<211> 5
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 53
Val Pro Lys Gln Arg
1 5

<210> 54
<211> 5
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<220>
<223> Description of Artificial Sequence: sequential

block reoptimization sequence

<400> 54

Val Pro Lys Met Arg
1 5

<210> 55

<211> 5

<212> PRT

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<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 55

Val Arg Lys Leu Arg
1 5

<210> 56

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 56

Ser Arg Trp Leu Glu
1 5

<210> 57

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 57

Phe Arg Trp Leu Glu
1 5

<210> 58

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 58
 Gln Pro Trp Leu Thr
 1 5

<210> 59
 <211> 5
 <212> PRT
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<220>
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 block reoptimization sequence

<400> 59
 Pro Pro Trp Leu Ile
 1 5

<210> 60
 <211> 5
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

<400> 60
 Pro Pro Trp Leu Lys
 1 5

<210> 61
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

<400> 61
 Pro Ala Trp Leu Thr
 1 5

<210> 62
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
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 block reoptimization sequence

<400> 62
 Pro Ala Trp Leu Ala

1

5

<210> 63
<211> 5
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<220>
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block reoptimization sequence

<400> 63
Trp Ala Trp Leu Asp
1 5

<210> 64
<211> 5
<212> PRT
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<220>
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block reoptimization sequence

<400> 64
Pro Thr Trp Leu Thr
1 5

<210> 65
<211> 5
<212> PRT
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<220>
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block reoptimization sequence

<400> 65
Glu Glu Val Ser Arg
1 5

<210> 66
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 66
Glu Tyr Leu Glu Ser
1 5

<210> 67
 <211> 5
 <212> PRT
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 <220>
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 block reoptimization sequence

 <400> 67
 Asp Tyr Val Thr Gln
 1 5

 <210> 68
 <211> 5
 <212> PRT
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 <220>
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 block reoptimization sequence

 <400> 68
 Asp Tyr Leu Ala Asp
 1 5

 <210> 69
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 69
 Glu Tyr Leu Thr Phe
 1 5

 <210> 70
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 70
 Gln Tyr Leu Glu Asp
 1 5

 <210> 71
 <211> 5

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 71
 Asp Tyr Val Ser Gln
 1 5

 <210> 72
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 72
 Ser Tyr Leu Asp Lys
 1 5

 <210> 73
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 73
 Glu Tyr Met Ser Asp
 1 5

 <210> 74
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: sequential
 block reoptimization sequence

 <400> 74
 Leu Leu Leu Leu Arg
 1 5

 <210> 75
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 75
Met Arg Leu Trp Arg
1 5

<210> 76
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 76
Met Arg Gly Trp Lys
1 5

<210> 77
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 77
Met Arg Lys Trp Arg
1 5

<210> 78
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 78
Met Arg Lys Trp Lys
1 5

<210> 79
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequential

block reoptimization sequence

<400> 79

Met Gly Val Met Arg
1 5

<210> 80

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ZIF1

<400> 80

Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser
1 5 10 15

Asp Glu Leu Thr Arg His Ile Arg Ile His Thr
20 25

<210> 81

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GLI1

<400> 81

Glu Thr Asp Cys Arg Trp Asp Gly Cys Ser Gln Glu Phe Asp Ser Gln
1 5 10 15

Glu Gln Leu Val His His Ile Asn Ser Glu His Ile
20 25

<210> 82

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GLI2

<400> 82

Glu Phe Val Cys His Trp Gly Gly Cys Ser Arg Glu Leu Arg Pro Phe
1 5 10 15

Lys Ala Gln Tyr Met Leu Val Val His Met Arg Arg His Thr
20 25 30

<210> 83

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SWI5

<400> 83

Thr	Phe	Glu	Cys	Leu	Phe	Pro	Gly	Cys	Thr	Lys	Thr	Phe	Lys	Arg	Arg
1				5					10					15	
Tyr	Asn	Ile	Arg	Ser	His	Ile	Gln	Thr	His	Leu					
			20					25							